



# **REPORT**

OF THE

## **LOCAL BOARD OF HEALTH**



**CITY OF EDMONTON**  
**ALBERTA**

**1934**

1889



22501417909

# Board of Health, 1934



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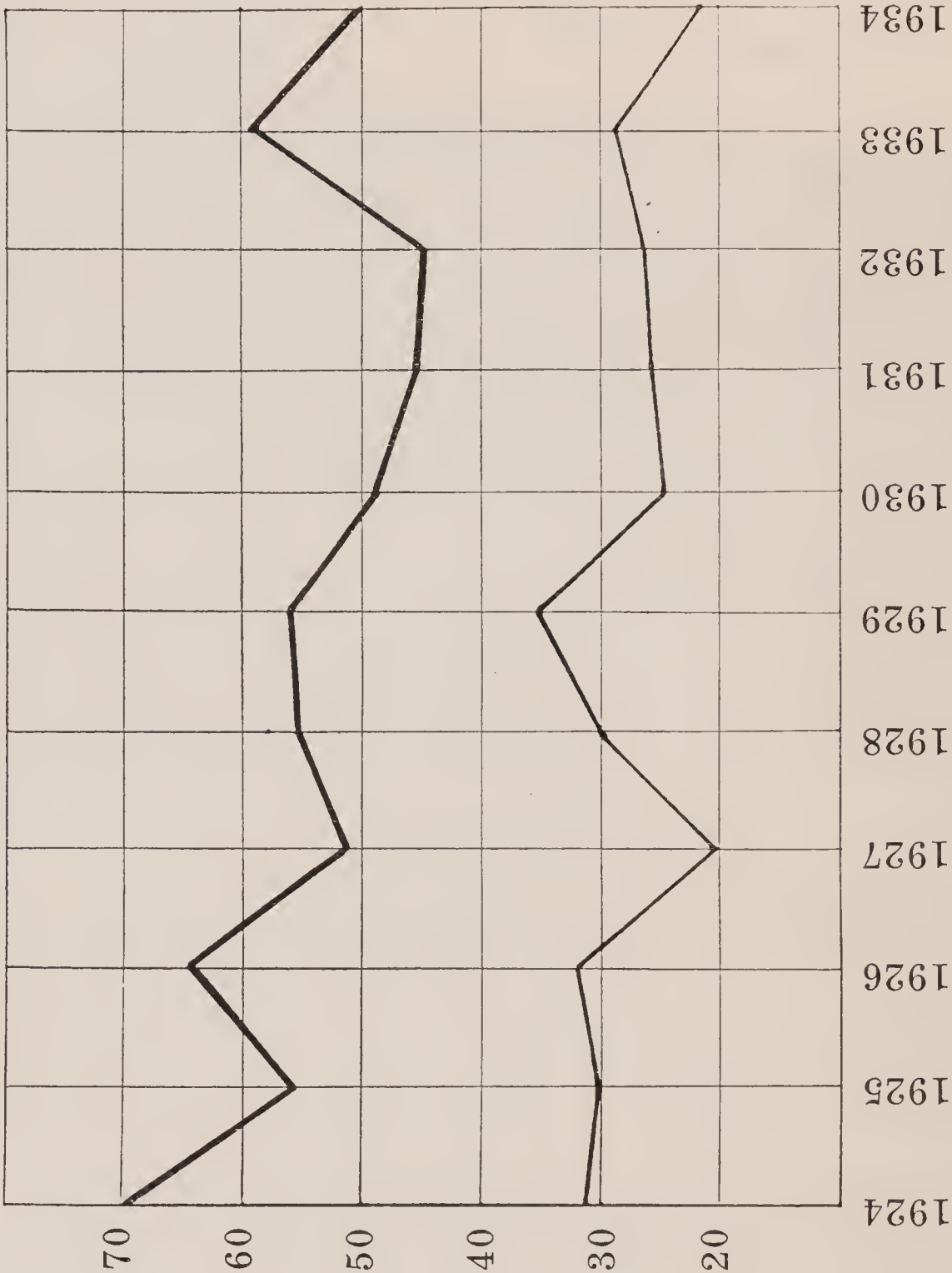
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INFANT MORTALITY

Rate Per 1,000 Living Births



Light line—"Diseases largely preventable."

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## Annual Report of Medical Officer of Health

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Local Board of Health,  
City of Edmonton.

Gentlemen:

As required by the regulations under the Public Health Act of Alberta, 1922, I am presenting herewith the annual report on health conditions in the City of Edmonton and a report of the activities of the Board's employees for the year 1934.

### COMMUNICABLE DISEASES

The chart on communicable diseases has been changed in order to show the cases and deaths in the preceding five years. From that you will see that there have been fewer cases of the communicable diseases and fewer deaths than in any year in the last five. Other charts have been prepared, but are omitted from the printed report for economy's sake. The distribution, considered from the standpoint of age, sex and season, provides interesting information, some of which will be commented upon. The venereal disease cases recorded in this report are mainly those which are in attendance at the Provincial Clinic and the only other places reporting to us are the hospitals. I would like to remind the physicians that under the Public Health Regulations they are required to give notice of these cases, but they do not have to give us the names of the patients. I would also like to point out to them that we can be of considerable assistance to them in the treatment of their patients if they care to avail themselves of our service, the purpose of which is to encourage regularity of attendance. Ten of the patients were less than fourteen years old. This may indicate the presence of untreated patients in the home.

Our method of tuberculosis control has been greatly assisted by the legislation passed by the Provincial Board of Health. This enables us to hospitalize cases where their condition is such that they are a menace to the family or the public generally. It also gives us the right to require that contacts shall be examined. Up to the present there have been few occasions where it has been necessary to invoke this legislation, but its presence places us in a strong position.

Of the 49 cases of tuberculosis, 13 were under the age of 14 years, 10 of these again were pulmonary tuberculosis. I think that we can attribute the finding of these children to the tuberculosis service which is conducted by the Kinsmen Club; in its absence, it is quite likely that these children would have continued undetected and untreated and some of them would have developed into advanced cases to be discovered in early adult life. Of the remaining numbers, 25 were 25 years or older, all of them in age groups in which they should be at full capacity to provide the means of livelihood. When one considers that this disease is not the type which is limited to a few days or even a few weeks, but goes on for months and years, its full seriousness to these persons and their families will be brought home to one.

Further analyses of different phases of the communicable diseases are available in our files.

The Isolation Hospital, in spite of the fact that they handled 364 patients during the year, had no cross-infections whatever, which speaks well of the high degree of efficiency maintained.

### MATERNAL AND CHILD HYGIENE AND NURSING SERVICE

The number of deaths are the same as for the preceding year but a significant fact pointed out in the report is that there were no maternal deaths associated with living births.

The infant mortality still remains at a comparatively low level, there being 12 fewer deaths under one year than in 1933. Again the majority of these, 44%, were due to causes which are considered to be preventable.

Illegitimacy is a predominant factor in this; six out of a total of seventy deaths were in this category. Infant mortality rate amongst the illegitimate was 100.

The four polling divisions, Nos. 9, 10, 11 and 12, which take in part of the business section of the town and adjoining residential areas, have a population of 12,929, or approximately 16% of the total population of the City. Of the 70 infant deaths which occurred in Edmonton, 20 were in this area. It is probably the most densely populated area that we have in Edmonton, there being 21.4 persons per acre. This, of course, compares very favorably with older cities, but is dense for a city this large. I think that the cause of this higher infant mortality in this section lies, not so much in the density of the population, as in the other factors, such as economic distress and unsuitable housing. In this district there is a number of so-called apartment houses where for economy sake families have gone into rooms which are insufficient in size for the number of persons and the facilities for recreation amongst children and the proper care of the children, infants especially, are inadequate. Of the 20 infant deaths from this area, 11 can be classed as preventable.

From the report of the child welfare clinics, we can see there has been a considerable increase in the attendance of pre-school children at the child welfare clinics.

#### **GENERAL SANITATION, FOOD AND MILK, ETC.**

The general sanitation of the City continues to be fairly satisfactory in spite of the difficulties that have been experienced at clean-up periods, and in spite of the continued financial difficulties of the residents. To maintain even these reasonably satisfactory conditions has meant that the health inspectors have been constantly active and the few evidences of friction speak well of their relationships in their districts.

The bath house and disinfecting station have more than proved their worth to the City. Although over 17,000 baths were given there, only 82 men were found to be verminous, where previously the numbers would have been in the hundreds and possibly even in the thousands.

May I point out the number of condemnations that have been made of the foods inspected by the meat inspectors. The reduction is very marked and I think should be taken as evidence that the producers realize the necessity of providing wholesome material, knowing that only such will have a chance of being approved.

Our milk supply shows evidence of continued improvement in quality, both when examined as raw milk and the street samples. Over 12,000 samples of raw milk were tested at the different plants and 96.57% of these were in the first class as determined by the Methylene Blue test. Our street samples show a small reduction in those which are grouped in the special class, that is, having under 15,000 bacteria per c.c., but on the whole were very satisfactory.

#### **VITAL STATISTICS**

The general death rate, 7.42 per thousand, remains at about the average for the past 10 years and on the table of principle causes it will be seen that diseases of the heart are very much in the lead, causing 112 deaths; cancer followed with 82 deaths. Together these causes accounted for over 31% of the total deaths.

Yours respectfully,

R. J. JENKINS,  
Medical Officer of Health.



EXPENDITURE

	1934	1933
Salaries .....	\$27,949.68	\$27,372.03
Supplies .....	1,015.34	1,093.05
Transportation .....	4,066.62	3,946.19
Sundries .....	445.36	663.86
	<hr/>	<hr/>
	\$33,477.00	\$33,074.86

REVENUE

Inspection fees, etc. ....	\$ 535.31	\$ 492.25
	<hr/>	<hr/>
	\$32,941.69	\$32,582.61

DIVISION OF EXPENDITURE

	Adminis- tration	Communi- cable Disease	Milk Control	Laboratory Service	Food Inspection	Public Health Nursing	Sanitation	Vital Statistics	Total
Salaries ....	\$6,902.00	\$1,944.00	\$1,890.00	\$2,282.00	\$2,513.00	\$2,645.00	\$8,490.00	\$1,284.00	\$27,950.00
Supplies ..	283.00	190.00	75.00	167.00	23.00	.....	218.00	59.00	1,015.00
Trans- portation	368.00	736.00	1,200.00	105.00	600.00	483.00	575.00	.....	4,067.00
Sundries ..	175.00	50.00	14.00	59.00	77.00	.....	70.00	.....	445.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$7,728.00	\$2,920.00	\$3,179.00	\$2,613.00	\$3,213.00	\$3,128.00	\$9,353.00	\$1,343.00	\$33,477.00
Per Cent of Total ..	23.1	8.7	9.9	7.8	9.6	9.0	27.9	4.0	

SUMMARY OF STATISTICS

Area of City (including 1,000 acres of water) 26,778 and 2,147 acres in Parks.

	1934	1933	1932	1931	1930
Population .....	79,773	79,231	78,387	79,059	77,557
Persons per acre of land.....	3.13	3.10	3.07	3.08	2.92
School enrolment .....	18,307	18,515	18,353	16,009	17,943
Natural increase of population .....	789	790	928	1,160	1,133
Cost per capita .....	0.42	0.42	0.45	0.46	0.47
Births, excluding stillbirths .....	1,383	1,375	1,561	1,671	1,676
Rate per 1,000 population .....	17.28	17.18	19.5	20.88	20.95
Stillbirths .....	37	29	52	53	62
Rate per 1,000 births .....	26.05	20.65	32.23	30.74	35.67
Deaths, excluding stillbirths .....	594	585	633	511	543
Rate per 1,000 population .....	7.42	7.31	7.91	6.39	6.79
Deaths, under 1 year of age .....	70	82	69	93	82
Infant mortality, rate per 1,000 living births .....	50.61	59.6	44.2	55.65	48.92
Deaths from childbirth .....	5	5	7	6	7
Maternal mortality, per 1,000 births ....	3.6	3.6	4.47	3.59	4
Marriages .....	1,313	1,119	1,183	1,226	1,338
Rate per 1,000 population .....	16.4	14.1	15	15.5	17.2
Non-resident births in City .....	791	725	779	753	817
Non-resident deaths in City .....	325	310	314	299	329
Non-resident deaths under 1 year .....	34	34	42	53	56

VITAL STATISTICS

Births

Male, 688; Female, 695; Total .....1,383

Born in hospital, 1,268, or 91.7 % ; at home, 115, or 8.3 %.

Physician attending, 1,377; unattended, 6.

Double births, 18.

Maternal Parentage—

Of the 1,383 births—

- 738 or 53.4 %—Canadian.
- 307 or 22.2 %—British
- 203 or 14.7 %—European.
- 128 or 9.2 %—U.S.A.
- 7 or .5 %—Others.

68 or 4.91% of births were illegitimate, of these—

Place of Birth of Mothers	Racial Origin
42 or 61.8%—Canadians	3 4.4%
12 or 17.6%—British	30 44.0%
9 or 13.2%—European	31 45.6%
2 or 3.0%—U.S.A.	.....
3 or 4.4%—Others	4 6%

1268 City births were hospitalized:

	City	Non-resident	Total
Royal Alexandra Hospital.....	707	250	957
University Hospital .....	225	106	331
General Hospital .....	125	102	227
Misericordia Hosiptal .....	171	118	359
Grace Hospital .....	25	38	63
Beulah Home .....	15	72	87

#### Stillbirths

Male, 20; Female 16; not stated, 1; Total ..... 37

Born in hospital, 32; unattended, nil.

Causes of Fœtal Deaths—

Dystocia .....	16	Prematurity .....	4
Malformation .....	5	Toxæmia of mother .....	1
Other diseases or conditions of mother.....			11

#### Deaths

Male, 358; Female, 236; Total ..... 594

293 or 49.3%—Canadians.

161 or 27.1%—British.

90 or 15.1%—European.

40 or 6.8%—U.S.A.

10 or 1.7%—Others.

Deaths under 1 year of age—

Male, 35; Female, 35; Total ..... 70

Rate per 1,000 living births, 50.61.

#### INFANT MORTALITY

Classifying the causes of deaths under one year from standpoint of preventability:

Class I—Cases to a great extent not controllable, premature birth (under 7 months), congenital debility and congenital malformation.

Class II—Capable of reduction by hygiene, isolation and treatment. Tuberculosis, syphilis, acute respiratory diseases and acute infectious diseases.

Class III—Capable of great reduction through care, proper feeding, pre-natal care; marasmus, acute gastro-enteritis, injuries at birth, premature over 7 months.

Of the 70 cases under one year of age for 1934:

Class I —24 or 34.3% of total.

Class II —15 or 21.4% of total.

Class III—31 or 44.3% of total.

#### MORTALITY FROM CANCER (All Forms) 1930-1934

Year	Total Deaths	Deaths from Cancer	Percent of Total Deaths	Rate Per 100M Population
1930 .....	543	72	13.25	90
1931 .....	511	54	10.56	57
1932 .....	633	71	11.2	89
1933 .....	585	82	14	102.5
1934 .....	594	82	13.8	102.5

In the 1934 deaths from cancer, 50 were males and 32 females. One death in 7 was due to cancer.

#### MORTALITY FROM HEART DISEASES (All Forms) 1930-1934

Year	Total Deaths	Deaths from Heart Disease	Percent of Total Deaths	Rate Per 100M Population
1930 .....	543	64	11.78	80
1931 .....	511	63	12.35	79
1932 .....	633	92	14.5	115
1933 .....	585	105	18	131.2
1934 .....	594	112	18.8	140

In the year 1934 deaths from heart disease, 69 were male and 43 female. One death in every 5.3 was from heart disease.







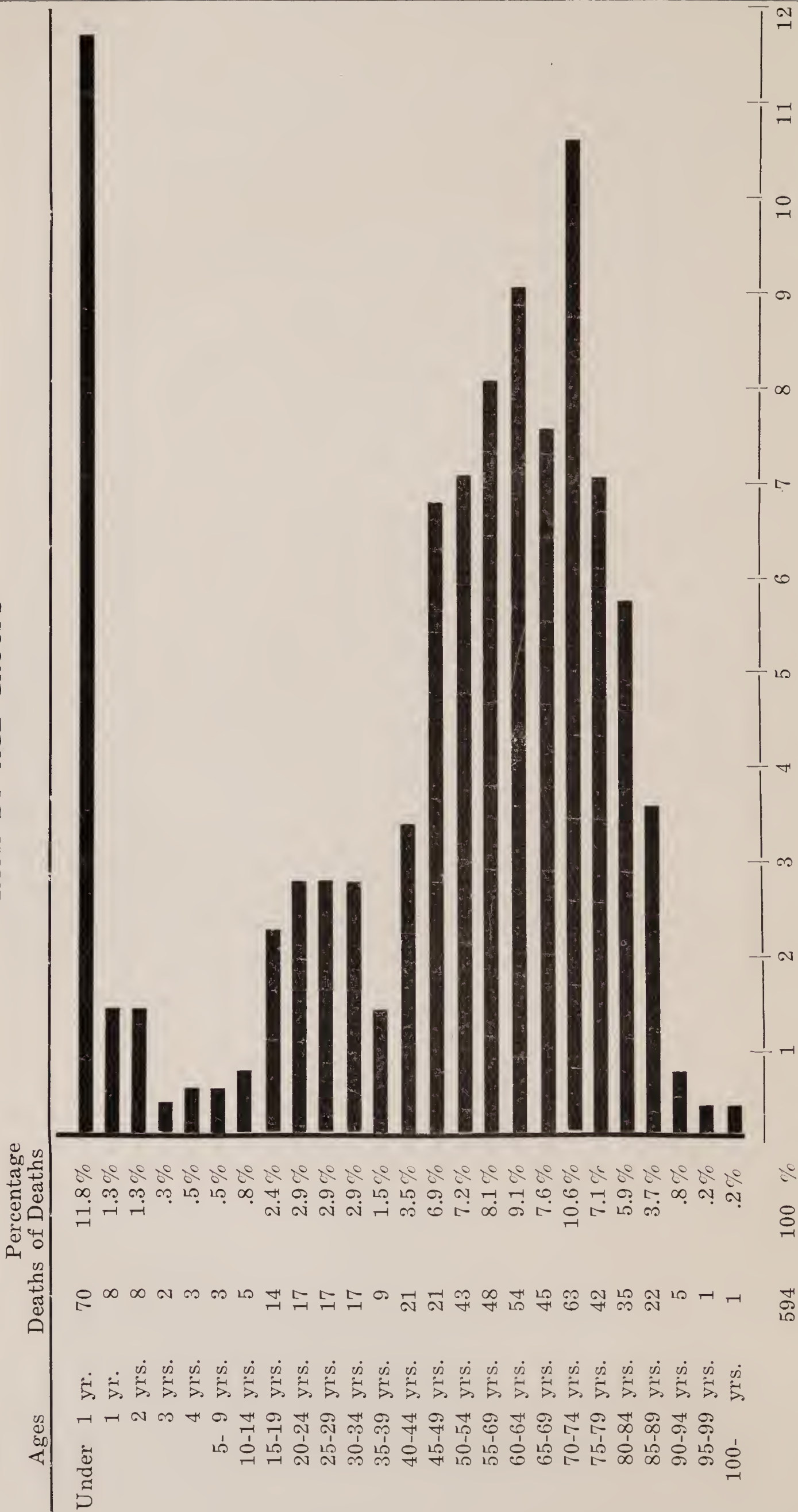
PRINCIPAL CAUSES OF DEATHS

		MONTHS												TOTALS				1933					
		January	February	March	April	May	June	July	August	September	October	November	December	X	Male	Female	Total	Percent of Total Deaths	Rate Per 1000 Population	Total	Percent of Total Deaths	Rate Per 1000 Population	
90—	95	5	3	8	7	7	3	4	4	5	3	8	8	4	69	43	112	18.8	140	105	18	131.2	
45—	53	5	2	5	3	6	4	3	2	2	5	2	4	...	50	32	82	13.8	102.5	82	14	102.5	
		5	1	4	1	3	4	3	9	5	1	4	9	1	...	5	49	8.3	61	32	5.47	40	
163—	198	6	2	3	1	3	2	...	2	2	4	6	2	1	44	10	32	5.3	40	23	4	28.7	
107—	109	1	3	...	1	2	6	2	4	4	6	4	2	9	...	16	5	49	8.3	61	32	5.47	40
		...	2	...	1	...	...	...	...	...	1	...	...	1	1	10	32	5.3	40	23	4	28.7	
82	Apoplexy	...	1	...	2	2	...	...	3	1	...	3	2	...	22	9	31	5.2	39	14	2.39	17.5	
		...	4	1	3	1	1	1	3	3	2	...	1	...	16	15	31	5.2	39	44	7.5	55	
158—	161	2	1	...	3	...	1	2	...	2	1	...	2	...	...	6	18	3	22.5	17	2.9	21.2	
153—	132	1	2	...	2	...	2	1	...	...	...	...	...	...	...	12	6	17	2.9	21	26	4.44	32.5
		...	1	1	...	4	2	...	3	1	...	...	3	4	...	...	15	5.2	39	44	7.5	55	
23—	32	...	1	...	1	...	...	1	...	...	3	...	...	2	...	6	18	3	22.5	17	2.9	21.2	
		1	...	1	...	1	2	2	2	...	...	2	1	...	11	6	17	2.9	21	26	4.44	32.5	
121	Appendicitis	...	...	...	...	1	...	...	3	...	...	...	2	...	...	6	17	2.9	21	26	4.44	32.5	
		...	1	1	...	1	1	2	...	...	...	1	1	...	8	6	14	2.4	17.5	14	2.39	17.5	
11	Influenza	...	1	...	...	...	1	2	...	...	...	2	...	...	...	8	5	13	2.4	16	24	4.10	30
		1	2	1	...	1	...	...	...	...	...	2	...	...	...	4	5	10	1.7	12.6	10	1.7	12.5
157	Malformation	...	...	...	1	2	...	...	...	...	...	2	...	...	...	5	10	1.7	12.6	10	1.7	12.5	
		...	1	1	1	...	...	...	1	...	...	1	...	...	5	2	7	1.1	9	12	2.05	15	
139—	120	...	...	...	...	1	...	1	3	...	...	...	...	...	...	5	5	.8	6	5	.85	6.25	
140—	150	...	...	...	...	...	...	1	...	1	...	...	...	...	...	2	7	1.1	9	12	2.05	15	
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5	.8	6	5	.85	6.25	
Totals		17	15	15	17	20	19	17	33	18	17	29	31	17	265	156	421	70.9	526.2	177	30.25	221.2	
Other Causes		12	16	11	13	17	11	6	13	8	14	14	19	2	93	80	173	29.1	216	177	30.25	221.2	
Totals		5	12	10	5	5	7	5	8	...	10	12	8	6	...	236	594	...	...	...	...	...	
Total		5	8	8	8	7	7	5	6	4	3	10	5	4	...	358	594	...	...	...	...	...	
		22	27	25	22	25	26	22	41	18	27	41	39	23	358	236	594	...	...	...	...	...	
		17	25	19	21	24	18	11	19	12	17	24	24	6	...	594	...	...	...	...	...	...	
		39	52	44	43	49	44	33	60	30	44	65	63	29	...	594	...	...	...	...	...	...	

“X” Denotes “Citizens dead away from city.”



DEATH BY AGE GROUPS



MORTALITY FROM TUBERCULOSIS (All Forms) 1930-1934

Year	Total Deaths	Deaths from Tuberculosis	Percent of Total Deaths	Rate Per 100M Population
1930 .....	543	36	6.63	45
1931 .....	511	23	4.50	29
1932 .....	633	37	5.84	46
1933 .....	585	26	4.44	32.5
1934 .....	594	17	2.9	21

EXTERNAL CAUSES OF DEATH 1930-1934

Year	Total Deaths	Deaths from External Causes	Male	Female	Suicide	Homicide	Accidental	Percent of Total Deaths	Rate per 100M Population
1930 .....	543	48	38	10	13	1	34	8.82	60
1931 .....	511	47	33	14	14	..	33	9.19	58
1932 .....	633	44	27	18	16	1	27	6.95	55
1933 .....	585	32	22	10	5	1	26	5.47	40
1934 .....	594	49	44	5	13	2	34	8.3	61

In the 1934 accidental deaths, 8 were automobile accidents and 5 were drownings.

MATERNAL DEATHS

There were 5 deaths in this class of which 2 were associated with stillbirths and 3 with no births (abortions, etc.). These stillbirths and abortions are not recorded as births.

The maternal death rate calculated in the usual manner of proportion of maternal deaths to the number of live births gives a rate of 5.6 per 1000 living births.

There were no maternal deaths associated with living births.

If only those deaths associated with either live births or stillbirths were considered, and their proportion to the number of live births and stillbirths combined, the result would be 1.4 per 1000; those associated with stillbirths to the number of stillbirths, the result would be 54.0 per 1000 stillbirths.

COMMUNICABLE DISEASES DEATHS

There were 2,367 cases of communicable disease reported during the year 1934, of which 1,291 were males and 1,076 were females. Using the figures from the Assessor's Office of 79,773 population, 39,220 males and 40,583 females, these figures give morbidity rates per 1,000 of 29.6 for total, 32.9 for males and 26.5 for females. The total morbidity rate for 1933 was 35.6.

Whooping cough, mumps and chickenpox accounted for 1,795 cases or 75.8% of all cases of communicable disease. Whooping-cough was highest with 715 cases and 1 death.

	No. of cases	Per cent	No. of deaths	Per cent
Pre-school .....	743	31.4 %	14	25.5 %
School (6-14 Yrs.) ....	1043	44.1 %	...	....
Adults .....	581	24.5 %	41	74.5 %
Total .....	2367	100 %	55	100 %

Of the 581 adult cases of communicable disease 368 or 63.4% were venereal disease with 6 deaths. Thirty-six (36) were tuberculosis (all forms), with 15 deaths. There were 49 new cases of tuberculosis (all forms) reported with 17 deaths, leaving an increase of 32 cases.

Of the 55 deaths from communicable disease 41 were adults and 14 were among pre-school children. It is notable that among Edmonton's 13,212 school children there were 1,043 cases, a morbidity rate of 78.9, but no deaths occurred.

Of the 41 adult deaths 15 were due to tuberculosis (all forms), 10 to lobar pneumonia and 8 to influenza. These three diseases therefore caused 80.5% of adult deaths from communicable disease and 60% of the total deaths from communicable disease.

No. of children in Public Schools, grades 1-8, ages 6-14 .....	11,343
No. of children in Separate Schools, grades 1-8, ages 6-14 .....	1,869

Total .....	13,212
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COMMUNICABLE DISEASES

	1934		1933		1932		1931		1930	
	C	D	C	D	C	D	C	D	C	D
Acute Poliomyelitis.....										
Acute Polimyelitis .....			3				7	1	11	2
Meningitis Epidemic .....	1		1		2		3	1	4	2
Diphtheria .....	3		1	1	3		30	1	9	1
Diphtheria Carriers .....							22			
Scarlet Fever .....	63		58		41		83	1	219	3
Smallpox .....							20		10	
Chickenpox .....	529		589		859		812		681	
Measles .....	32		35		3654	4	31		132	
Mumps .....	551		420		491		147		718	2
Rubella .....	4		2		3		6		4	
Typhoid .....	1		7	1			4		7	
Typhoid Para .....					3		2		7	
Whooping Cough .....	715	1	1326	5	306		224		507	
Erysipelas .....	24	3	17	2	23	2	37		55	3
Pneumonia Acute Lobar .....	5	12		10	5	15		9	3	14
Dysentery .....	1	1			1		2	3		
Tuberculosis (Pulmonary) .....	43	11	62	18	57	31	71	19	55	23
Tuberculosis (other forms) .....	6	6	7	8	7	6	5	4		13
Septic Sore Throat .....	2				8	2			2	
Trachoma .....			1				1			
Actinomycosis .....	1									
Tularaemia .....	2									
Encephalitis Lethargica .....	1									
Puerperal Septicaemia .....					1	1	2	5		
Undulant Fever .....			1							

Venereal Disease—

Chancroid .....	24									
Gonorrhea .....	227		226							
Syphilis .....	78	5	94	5		5	6	1		

Totals .....	2363	39	2850	50	5464	66	1525	45	2425	63
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Non-notifiable—

Typhoid Carriers .....			1		1		1			
Influenza .....		13		24		39		22		12
Mycoses .....				1						
Purulent Infection .....		3		2		6				
Trench Mouth .....	4				3					

Totals .....	2367	55	2851	76	5468	111	1526	67	2425	75
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Total deaths all causes .....		594		585		633		511		543
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Percent of deaths due to communicable disease .....		9.26		13.		17.5		13.1		13.8
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One death in every.....due to communicable disease .....	43		37.5		49.2		22.7		32.3	
--	----	--	------	--	------	--	------	--	------	--

C—cases.

D—deaths.

The deaths include Edmonton Citizens who died outside the city.



[illegible]

COMMUNICABLE DISEASE REPORT BY SEX AND SEASON

	Total	M.	F.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cerebrospinal Meningitis	1	1												1	
Diphtheria	3	1	2			2									
Scarlet Fever	63	28	35	10	9	5	3	3	6	6	1	7	6	5	2
Chickenpox	529	272	257	93	37	14	10	14	29	20	11	13	35	121	132
Measles	32	15	17	3	1	1	4	2	3	5	2		6	3	2
Mumps	551	251	300	182	105	95	57	34	16	7	13	12	14	6	10
Rubella	4	2	2							1					1
Paratyphoid	1		1								1				
Whooping Cough	715	358	357	176	110	134	89	52	40	10	14	23	15	30	22
Deaths	1						1								
Erysipelas	24	13	11	3		2	1	4	2	5	4		1		2
Deaths	3	3					1						1		1
Pneumonia Lobar	5	2	3	3				1						1	
Deaths	12	6	6					2			3		1	3	
Tuberculosis (Pulmonary)	43	24	19	3	4	6	4	3	3	2		4	6	5	3
Deaths	11	6	5	1					1	1	4			1	3
Tuberculosis (Other Forms)	6	3	3		1			2	2				1		
Deaths	6	5	1	1				2	1		1			1	1
Septic Sore Throat	2		2	1											
Dysentery	1	1									1				
Deaths	1	1													
Actinomycosis	1	1												1	
Tularaemia	2	1	1			1								1	
Encephalitis Lethargica	1		1												1
<b>Veneral Diseases</b>															
Chancroid	24	17	7	2	4	4			5	1	1		2	2	3
Gonorrhoea	277	246	31	19	21	26	17	11	26	20	17	21	35	47	17
Syphilis	78	58	25	2	13	9	8	7	5	5	4	5	8	7	5
Deaths	5	4	1		1	1			1		1				1
<b>Non-Notifiable</b>															
Trench Mouth	4	2	2	1					2						1
Influenza															
Deaths	13	8	5	2	2	1	1	1						2	4
Purulent Infection															
Deaths	3	1	2	1	1			1							
Total Cases	2367	1291	1076	500	306	298	193	134	139	82	69	85	129	230	202
Percent of Total		54.5	45.5	21.1	12.9	12.6	8.2	5.9	3.5	3.5	2.9	3.6	5.5	9.7	8.5
Total Deaths	55	34	21	5	7	2	3	6	3	1	10		2	7	9
Percent of Total		61.6	38.2	9.0	12.7	3.6	5.5	11.0	5.5	2.0	18.2		3.6	13.0	16.3



	Quarantine Period	No. of School Days	No. of Cases	No. Days Lost
Spinal meningitis .....	....	....	1	15
Scarlet fever .....	42	35	29	1,015
Chickenpox .....	10	7	313	2,191
Measles .....	14	10	5	50
Mumps .....	21	15	382	5,730
Whooping-cough .....	21	15	254	3,810

No. of days lost ..... 12,811

No. of days' schooling lost owing to communicable diseases, 12,811; this does not include July and August cases nor contacts.

During the year 1,031 school exclusion notices were sent out.

Of the 495 city deaths 55 or 9.2% were due to communicable diseases.

ISOLATION HOSPITAL

Three hundred and forty-six patients were admitted, 316 discharged, 23 died, and 40 remained in hospital at the end of the year.

The diseases hospitalized included: Scarlet fever, 58; tuberculosis, 42; diphtheria, 8; typhoid fever, 4; paratyphoid, 2; erysipelas, 31; meningitis (all forms), 4; poliomyelitis, 1; whooping-cough, 16; scabies, 33; diphtheria carriers, 3; Vincent's angina, 7; complications following scarlet fever, 6.

The deaths were as follows: Tuberculosis, 7; meningitis, 1; whooping-cough, 3; others, 11.

IMMUNIZATION

	Smallpox Vaccination	Diphtheria Immunization	Diphtheria & Scarlet Fever Immunization	Whooping Cough Immunization	Scarlet Fever Immunization
Local Board of Health .....	129	138	159	139	2
Public School Board .....	..	1345	.....	.....	..
R.C. Separate School Board .....	225	237	.....	.....	..
	354	1720	159	139	2

"KINSMEN'S" TUBERCULOSIS NURSING SERVICE

Total visits made by nurse.....	2,970	Clinics, number held.....	21
Visits to positive cases .....	1,343	Persons examined .....	243
Visits to suspect cases .....	244	New examinations .....	127
Visits to contacts .....	458	(a) positive .....	22
No. of contacts seen .....	3,216	(b) suspects .....	24
Co-operative visits .....	669	(c) contacts .....	37
Not at home, wrong address, etc. ....	256	(d) ex-sanatorium .....	8
New cases reported.....	72	(e) non-tubercular .....	36
Suspects .....	30	Re-examinations .....	32
Contacts .....	144	Re-examinations ex-san. ....	75
Cases admitted to sanatorium....	16	Contacts .....	9
Cases admitted to local hospitals .....	38	No. of visits to office .....	620
Died, 18; deported, 1; discharged, 3 .....	22	Letters written .....	277
Total cases on roll.....	414	Tuberculin tests .....	117
		Positive .....	56

PUBLIC HEALTH NURSING

The following visits have been made:

	1934	1933
Child welfare .....	2936	2934
Investigations .....	65	102
Pre-natal .....	291	279
Post-natal .....	139	175
New births .....	115	130
Total visits .....	3546	3620

PRE-NATAL AND POST-NATAL SERVICE

New cases admitted to roll .....	166	172
Discharged (babies born).....	174	173
Pre-natal cases on roll December 31st .....	35	43

The Junior Hospital League, Red Cross and other organizations rendered valuable service in providing layettes for many needy cases. In some instances. cots and bedding were also supplied.



### DISABILITIES FOUND DURING DISTRICT VISITS

	Babies	Age Pre-School	Age School	Adults
I. Infectious and parasitic diseases ...	26	21	5	3
II. Cancer and other tumors .....		....	.....	....
III. Rheumatic Diseases, Diseases of Nutrition and of Endocrine Glands and other general diseases .....	16	2	....	4
IV. Diseases of the Blood and Blood Forming Organs .....	3	....	....	2
VI. Diseases of the Nervous System and Organs of Special Sense ....	7	6	3	3
Diseases of the Organs of Vision ...	7	13	1	2
Diseases of the Ear and of the Mastoid Process .....	4	3	1	1
VII. Diseases of the circulatory system	1	8	4	19
VIII. Diseases of the Respiratory System	7	5	1	....
IX. Diseases of the Digestive System	60	97	4	2
X. Diseases of the Genito-Urinary System .....	6	8	4	3
XI. Diseases of Pregnancy .....		....	....	9
XII. Diseases of the Skin and Cellu- lar Tissue .....	56	18	6	6
XIII. Diseases of Bones and Organs of Locomotion .....	1	1	....	....
XIV. Congenital Malformation .....	4	1	....	....
XV. Diseases of Early Infancy .....	5	1	....	....
XVI. Senility .....		....	....	....
XVII. External Causes .....	3	3	....	....
XVIII. Not Specified .....		3	....	1

From the above report it will be seen that the number of visits made by our nurses throughout the year has been well maintained, the number being 3546, as compared with 3620 in 1933. That the nursing staff has been instructed to include all members of a family in their survey when making a visit accounts for a considerable increase in the number of adults receiving advice. It was found that, with few exceptions, the disabilities examined could not be attributed to the present economic situation.

Where extra food and clothing were found to be necessary, efforts were made to have these provided. Hospitalization was also arranged when necessary.

### CHILD WELFARE CLINICS

	1934	1933
No. of diagnostic clinics.....	102	102
No. in attendance .....	5224	5562
Average attendance .....	51	51
New cases admitted (babies).....	779	792
New cases admitted (pre-school).....	196	198
Babies referred to family doctor.....	63	50
Pre-school referred to family doctor.....	61	29

Attendance according to age:

Babies under 1 year.....	3407	3983
Babies under 2 years.....	1118	1103
	4525	5086
Pre-school children under 3 years .....	599	503
Pre-school children under 4 years .....	344	305
Pre-school children under 5 years .....	286	224
Pre-school children under 6 years .....	169	155
Pre-school children under 7 years .....	44	57
	5967	6336

Clinics were held on every Tuesday and Friday throughout the year. Dr. Folinsbee, Dr. Calder and Dr. M. F. Newell were in charge to examine and give advice to mothers regarding care and feeding of infants. Cases requiring treatment were referred to the family doctor. Each Wednesday





a clinic is held with two nurses in attendance, for the purpose of weighing babies and giving advice to those cases not requiring medical supervision.

Arrangements have been made whereby the Household Economic Students of the University of Alberta Hospital are taking field work with nurses of the Department of the Board of Health. During the past year a class of twelve students have taken advantage of this special work.

The Provincial Outdoor Clinic, Victorian Order of Nurses, Sunshine and other societies gave praiseworthy co-operative service at all times.

The Victorian Order of Nurses have kindly forwarded their report, which shows the following services:

Births attended .....	66
Pre-natal .....	253
Obstetrical .....	501
Infants of obstretical cases .....	664
Post-natal .....	448
Infants of post-natal cases .....	464
Pneumonia .....	15
Delivery visits .....	264
Clinics and classes .....	574
Chronics .....	493
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Total visits .....	5756

## HEALTH INSPECTIONS

### INSPECTIONS

669 complaints were received from the public, of these 452 were found to be justified upon inspection.

4,897 verbal notices were issued for the abatement of nuisance and 1,235 written notices, making a total of 6,132.

19,103 inspections were made of public and private premises, 3,939 re-inspections were made.

### LICENSES

1,256 license applications received from bake shops, barber shops, bath houses, butcher shops, candy and ice cream parlors, dairies, dog kennels, entertainment halls, fish dealers, fur farm, hair dressing and manicuring, laundries, lodging houses, pool, billiard and dance halls, restaurants, vegetable and fruit wagons, etc., were investigated and reports turned over to License Inspector for action.

89 new sewer and water notices were issued. Sewer and water was installed or the buildings removed in 33 cases. Extensions of time were granted to 32 parties, 8 of whom signed statements to have their buildings removed by the spring of 1935. Figures from the Building Inspector show that 183 plumbing permits were issued, of these 48 were for old buildings.

### HOUSING SUPERVISION

All rooming houses were regularly inspected. With the exodus of single men to the employment camps only a few cases of "overcrowding" had to be dealt with.

Written notices to abate bedbug nuisances were issued to 33.

The general sanitation of these buildings has been well maintained.

35 old buildings, mostly on 105 Ave. west of 101 St., were removed or demolished during the year. By this clearance much unsightliness has been removed and the general sanitary conditions much improved.

### BATH HOUSE AND DISINFECTING STATION

17,224 men were given baths. Of this number 82 were verminous. The clothing of 693 were disinfected. 14,268 men washed their clothing and 24,804 clothing units were washed. 739 cases of scabies were treated and their clothing and bedding disinfected.

It is to be noted that the cases of Scabies treated are more than double that of 1933. It is felt in this regard that our educational policy of previous



years is showing results. By notification, etc., our Department and School nurses gave splendid co-operation.

### **SCAVENGING**

As comparatively few complaints were received by this Department or by the Engineering Department it is to be concluded that the Scavenging service was well maintained throughout the year. Owing to the strike of the workers who were on relief, the cleanup campaign was not as thorough as in the past years. 1,200 loads were removed from the north side of the river and 282 loads from the south side. A good response was made by the citizens in the cleanup work.

### **COWSHEDS AND STABLE INSPECTION**

Owing to the prevailing distress it was impossible to effect as much structural improvement in local cowsheds, stables, etc., as was desired. Much good instructional work, however, was carried out. \$463.00 cattle and hog permit fees were collected.

### **FOOD AND BEVERAGES**

15 samples of foodstuffs, exclusive of water and milk, were collected by the Health Inspectors and submitted to the Provincial Laboratory for examination. 3323 pounds 4 ounces of foodstuffs were condemned by Health Inspectors. 122 rinse water samples (of ice cream dippers) were taken and submitted to the Provincial Laboratory for analysis. In those cases that showed a high bacterial content, the proprietors of the establishments were warned. Succeeding tests showed a distinct improvement.

### **WATER**

12 samples of well water were taken, 2 wells were placarded. 2 ice samples were taken. Inspections were made of ice houses and ice fields.

### **INFECTIOUS AND CONTAGIOUS DISEASES**

Assistance was given the Quarantine Officer during the busy season in quarantining and releasing homes from quarantine by the Health Inspectors.

Cases of tuberculosis, goitre, trench mouth, suspect typhoid fever, venereal disease, etc., were investigated by the Inspectors during the year.

### **INDUSTRIAL HEALTH SERVICE**

Many inspections were made of the business premises where help was employed. Ventilation and rest rooms received particular attention. Where improvements were needed orders were issued to that effect.

### **RELIEF**

Considerable time was spent during the year in investigating appeals for relief which came under our notice.

We have to thank Mrs. Marshall, Journal Sunshine, and the ladies in charge of the Blanket Fund, and other charitable organizations for their help regarding bedding, clothing, etc.

### **ENFORCEMENT OF REGULATIONS**

Three were prosecuted during 1934.

## **FOOD INSPECTION**

During the past year (September 18th) one new abattoir has been approved and opened for business, bringing the total of these establishments under civic inspection to four. Of these two are fairly satisfactory as to accommodation and general conditions and two are in poor condition and generally unsatisfactory. Permanent accommodation has been provided for meat inspection in connection with the City Market.

The decline in the number of hogs slaughtered noted in the report for 1933 has been accentuated during 1934 due to increasing cost of the live animals, but this decline in the hog total has been almost made up by the increased number of all other classes of animals slaughtered.

MEAT INSPECTED AND CONDEMNED

	1931	1932	1933	1934
<b>Beef</b>				
Inspections .....	1,356	1,240	1,664	2,429
Carcasses condemned .....	7	8	7	14
Portions condemned .....	208	207	232	278
Weight (lbs.) .....	5,990	8,268	9,141	1,424
<b>Veal</b>				
Inspections .....	2,268	2,242	2,244	2,938
Carcasses condemned .....	7	9	2	10
Portions condemned .....	21	18	29	42
Weight (lbs.) .....	1,010	1,086	645	1,670
<b>Mutton</b>				
Inspections .....	2,364	1,910	1,868	2,168
Carcasses condemned .....	14	3	4	7
Portions condemned .....	195	152	99	134
Weight (lbs.) .....	951	680	500	722
<b>Pork</b>				
Inspections .....	4,429	6,574	5,288	2,763
Carcasses condemned .....	12	11	5	10
Portions condemned .....	1,525	2,114	1,546	858
Weight (lbs.) .....	12,625	28,356	18,909	11,641
<b>Totals</b>				
Inspections .....	10,417	11,966	11,004	10,298
Carcasses condemned .....	40	31	18	41
Portions condemned .....	1,949	2,491	1,906	1,312
Weight (lbs.) .....	20,576	38,390	21,195	25,457

CARCASES INSPECTED AND FOUND TO BE INFECTED BY T.B.

	Inspections	Infected	Percent.
Beef .....	2,429	29	1.15 %
Pork .....	2,763	414	14.98 %

FOODSTUFFS CONDEMNED

Meat .....	25,457 lbs.	
Poultry .....	268	8 ozs.
Fish .....	130	
Sundries .....	51	

Foodstuffs Condemned by Health Inspectors

Canned goods .....	3,044	4
Meat .....	118	
Fish .....	20	
Fruit .....	130	8
Poultry .....	5	
Sundries .....	5	8
		<hr/>
		29,229 lbs. 12 ozs.

No. of visits to butcher shops ..	4,598
No. of visits to other shops .....	1,554
Complaints received from the public	19
Complaints justified .....	10
	—————6,152

DAIRY INSPECTION

The following four hundred and seven applications for dairy licenses comprise the general milk supply and come under my report as follows:

	Totals	Granted	Refused
Local and within 15 mile radius of city (milk) .....	294	289	5
More distant points (cream) .....	113	107	6
		<hr/>	<hr/>
		407	11



During the year 264 dairy licenses of milk producers who ship milk to pasteurization plants were temporarily suspended on account of the frequent excessively high bacterial content of the milk as determined by the Methylene Blue Reduction Test. Five licenses of milk shippers were also temporarily suspended on account of unsatisfactory Sediment Tests.

During the year two producer-distributors retailed raw milk which was of frequent excessively high bacterial content as determined by the Methylene Blue Reduction Test. The milk was excluded from the fluid milk market for a few days until it was shown to be of satisfactory bacteriological quality. In the meantime these producer-distributors were allowed to retail milk which had been obtained from dairies that were in good standing. During this period the milk from their own herds was sold to a pasteurization plant where it was separated and used for churning purposes. It will probably be of interest to give a few examples of both the reduction time and official plant count of the milks, which were bottled retail milks from the two dairies in question, and they are therefore shown herewith:

Milk Sample	Reductase Classification	Reduction Time	Plate Count
No. 1	Class 2	5:00	4,000
2	3	:35	10,000
3	3	:45	58,000
4	3	1:45	19,000
5	2	5:00	11,000
6	2	5:00	55,000

Reduction times are reported in hours and minutes, 1:45 meaning 1 hour and forty-five minutes.

For several years, the standard in Edmonton for raw milk shipped to milk plants for pasteurization has been in the rejectable class where the reduction time has been less than 5½ hours under the reductase test. Samples Nos. 2 and 3 in the above table show shorter reduction times than have been known for several years amongst the raw herd milk which has been shipped to milk plants to be pasteurized. Where previously, the plate count only was applied to the raw milk misleading information was frequently imparted, reasons for which, have since been given in the following papers: "Milk Contamination and the Methylene Blue Reduction Test," by Thornton, Strynaka, Wood and Ellinger, published in the Canadian Public Health Journal, June, 1934, and "The Production of Milk of Low Bacterial Content," written by the same authors and published in The Canadian Dairy and Ice Cream Journal, August, 1934. Reprints of which, are also available for distribution upon application to this office.

The improvement made in the keeping quality of the raw milk which is shipped to milk plants to be pasteurized has been maintained during 1934 and further improvement is also shown over 1933. The reductase tests were carried out according to the Standard Methods of Milk Analysis and with the same frequency as reported in 1933. Class 3 milk or lower having been completely eliminated. During 1934, 12,401 samples of the above market milk were tested under the supervision of this branch of the Local Board of Health. The following table shows the percentage of milk producers who shipped raw milk to pasteurization plants which was in Class 1 under the above standards when received at the milk plants. Limitations of space compel the omission here of the results of the weekly tests and they are therefore, shown as a monthly average:

	1930	1931	1932	1933	1934
January .....		90.82	95.11	96.68	97.62
February .....	72.	90.55	95.10	97.84	96.97
March .....	75.5	91.51	95.67	97.08	98.38
April .....	77.5	87.21	96.75	96.76	96.97
May .....	65.	87.01	91.13	95.24	93.73
June .....	65.5	79.88	85.20	93.22	93.29
July .....	44.	77.20	97.21	92.64	92.64
August .....	64.	83.92	91.54	92.86	94.65
September .....	88.	92.18	95.38	97.73	98.16
October .....	91.5	97.19	97.95	98.38	99.14
November .....	88.	97.19	96.35	96.51	99.35
December .....	88.	91.33	97.	99.57	97.95
Average .....	74.4	88.84	94.53	96.04	96.57



The supervision of the reductase test has again resulted in a number of cows which were infected with mastitis being removed from the milking herds for slaughter and it is estimated that approximately 200 cows have been so disposed of since 1930. Some very effective progress has been made in the detection of mastitis by means of the reductase test. Now with more delicate tests being available greater improvement will be expected.

During the latter part of 1934 there was an unprecedented activity amongst the shippers of milk to pasteurization plants in the building of standard type two-room milk houses and in the construction and remodelling of dairy barns in preparation for the proposed "A.B.C.D." grading and degrading system in the new milk regulations. About 100 new milk houses were constructed under the supervision of this branch of the Local Board of Health. The grading system referred to conforms with the standards of the milk ordinances recommended by the U. S. Public Health Service which ordinance is now the most widely adopted standard in the public health control of milk supplies.

An educational circular was written and distributed to milk producers in reference to the reductase test.

LABORATORY REPORT

During the year there were taken 1533 samples of retail milk an increase over the previous year of 240. The official plate counts of the bacterial examination are summarzied as follows:

	Special	40000 15000	100000 40000	400000 100000	400000 Over	T.N.C.	Spreaders	Total
January .....	91	10	4	6	....	....	....	111
February .....	95	19	7	2	....	....	2	125
March .....	73	19	11	4	....	1	2	110
April .....	90	22	11	9	....	....	1	133
May .....	100	27	10	5	1	....	1	144
June .....	87	25	8	4	....	....	1	125
July .....	79	8	8	....	....	....	3	98
August .....	108	22	14	11	....	2	1	158
September .....	85	15	9	....	....	....	....	109
October .....	132	10	7	....	....	....	....	149
November .....	119	11	6	2	....	....	1	139
December .....	89	20	19	4	....	....	....	132
Total .....	1148	208	114	47	1	3	12	1533
Per Cent .....	75.5	13.7	7.4	3.1	.1	.2	....	100

On these samples the Methylene Blue reductase test was also run and 39 samples graded below number one grade on this test. These two examinations supplement each other, the one frequently finding trouble not clearly shown by the other. The sediment test was used to detect dust or other foreign solids gaining access to the milk.

	1934	1933	1932
Average mark for sediment test (possible 10) .....	8.7	9.13	8.88
Average butter fat on 1528 samples .....	4 %	3.94 %	3.84 %
Average solids not fat on 1285 samples .....	8.93 %	8.98 %	8.74 %

There were also examined in addition to the regular retail samples a large number of special samples on which either a complete or partial examination was made. Many of these were for the information of purchases or of producers wishing information about their product. There were 127 samples examined for butter fat with an average test of 4.1%. Of ninety-six examined for bacteria 70.6% graded special. Forty-nine samples of cream gave an average butter fat content of 24.5% and of 51 examined bacterially 36% graded in our special class.

In view of the new Provincial Regulations governing Ice Cream some preliminary work was done on the bacteria counts. Some trouble was ex-

perienced at first in meeting the requirements but further samples were quite satisfactory. Six samples in all were taken.

There was also a certain amount of work done on the detection of infectious mastitis in a few of the dairy herds, mostly in connection with the refresher course of the Provincial Veterinary Asociation at the University. The spread of this disease has created quite a problem amongst our dairymn but it seems to be more largely an economic one than a health question. All the retail samples of milk for a short period were examined for the amount of chlorides contained and a large number were found to be abnormal in this respect. Catalase and Brom thymol tests and microscopic examination confirmed the abnormality in many individual samples.

### **SWIMMING POOLS**

The usual supervision was given to the operation of the swimming pools. 180 samples were taken and of these all gave counts of 200 or under per c.c. (the generally accepted standard). Almost all of these were under 10, no sample gave a positive test for colon bacillus. The usual chemical testing solutions were supplied for the control of chlorination.

### **SEWAGE DISPOSAL PLANTS**

General supervision was also exercised over the operation of the sewage plants during the year as in the past. Solutions and apparatus were supplied the various operators to control the proper operation of their various plants. Several examinations of the sewage gas were made. The gas tested fairly uniformly around 66% Methane and the rest inert gases. Less trouble was experienced with the plants this past year, everything operating quite satisfactorily.







